**Providers should always** view the order in CPRS, as it is built with emphasis on noting the tablet strength the software assigns based on the dose selected.

Report signs and symptoms of bleeding or thromboembolism to the responsible caregiver as soon as possible and instruct patients to report these signs and symptoms too!



ANTICOAGULANTS ARE MONITORED BY AN INTERNATIONAL NORMALIZED RATIO (INR). CAUSES OF INR FLUCTUATIONS

- Heart failure exacerbation
- Pneumonia
- Changes in dietary vitamin K intake
- Changes in dietary protein intake
- Diarrhea, bowel flora change
- Drug-drug interactions
- Alcohol and/or tobacco usage
- Non-adherence with prescribed warfarin dose

## **Enhancing patient safety:**

- ✓ Be familiar with the anticoagulation management program.
- ✓ Use approved protocols for the initiation and maintenance of anticoagulation therapy.
- ✓ Follow high alert medication policies for anticoagulants.
- ✓ Use programmable infusion pumps for administration in order to provide consistent and accurate dosing.
- ✓ Before starting an infusion and with each change of the container or rate of infusion, double check the drug, concentration, dose calculation, rate of infusion, pump settings, line attachment and patient identity.
- ✓ Be aware of look alike products with infusion bags.
- ✓ Follow proper BCMC (Bar Code Medication Administration) procedures.
- ✓ Be aware that patients receiving anticoagulant therapy may be at increased fall risk, follow proper fall risk procedures.
- ✓ Ensure that a baseline and current INR is available all patients taking warfarin.
- ✓ Notify Dietary Service of inpatients on warfarin.
- ✓ Maintaining a complete and accurate list of the patient's medications is key in preventing interactions.
- ✓ To assist with inpatient anticoagulant therapies contact your team pharmacist, or ext 7521.
- ✓ To schedule a patient in clinic use the "Anticoagulation Clinic" consult.
- ✓ For additional information regarding the JAHVH Anticoagulation programs contact: 813-972-2000, ext 4333.
- ✓ Reference JAHVH HPM 111-6 for current practice protocols.



## ANTICOAGULATION THERAPY MANAGEMENT



James A. Haley Veterans' Hospital 13000 Bruce B. Downs Blvd. Tampa, FL 33612

Serving those who served

Even in the absence of medication errors, anticoagulation therapy often leads to adverse drug events due to:

- ✓ Complexity of dosing
- ✓ Problems with follow up monitoring
- ✓ Inconsistent patient adherence
- ✓ Drug-drug, drug-food, drugdisease interactions.
- ✓ Lack of patient education

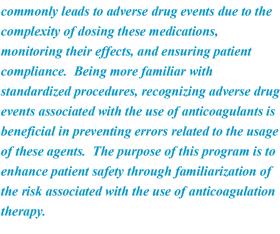
Anticoagulants have been identified as one of the top five drug types associated with patient safety incidents in the US.



Although anticoagulants are an important therapeutic modality in the treatment of many life-threatening conditions, these agents are frequently associated with medication errors resulting in harm to or death of the patient.

Medication errors occur for a variety of reasons and in a variety of ways. Errors can occur in the prescribing, transcribing, dispensing, or the administration of the product.

Anticoagulation is a high risk treatment, which commonly leads to adverse drug events due to the complexity of dosing these medications, monitoring their effects, and ensuring patient compliance. Being more familiar with standardized procedures, recognizing adverse drug events associated with the use of anticoagulants is beneficial in preventing errors related to the usage of these agents. The purpose of this program is to enhance patient safety through familiarization of the risk associated with the use of anticoagulation therapy.



## Joint Commission

Due to continued reports of patient harm directly caused by anticoagulation therapy, the Joint Commission published the 2010 National Patient Safety Goals (NPSG 03.05.01), which includes an anticoagulation therapy goal.

That goal is for our facility to "reduce the likelihood of patient harm associated with the use of anticoagulation therapy."



Department of Veterans Affairs



## **Patient Monitoring**

It is very important for all inpatients who are discharged on warfarin therapy to receive appropriate and timely follow up and monitoring. Make sure follow up care is arranged *before* patient leaves the hospital.

Advise patients to obtain medical assistance immediately if they have a serious fall, hard bump to the head, constant headache or unusual bruising or bleeding.

Other symptoms include dark colored urine or stool, pain, redness or swelling in feet or legs and chest pain. Patients should call if they are experiencing chest pain, difficulty breathing and have a noticeable drop in blood pressure.

See VHA Directive 2009-003 Anticoagulation Therapy Management for more information.